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EXAMINER

LE, CHAU D

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/701,302 | Applicant(s) DATTA ET AL. | |
| | Examiner CHAU D. LE | Art Unit 2447 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 7-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to a Request for Continued Examination (RCE) on 04/24/2010. Applicant amended claims 1, 8, 12, 14, 15, 18, 21 & 24-26 and canceled claims 3-6.

2. The claims 1-2 & 7-26 are pending.

Response to Arguments

3. Applicant's arguments with respect to independent claims 1, 18, 21 & 24 have been considered but are moot in view of the new ground(s) of rejection.

Applicant amended independent claims 1, 18, 21 & 24 to include additional limitations. The rejection has been updated to reflect the newly amended limitations as currently claimed.

Claim Objections

4. Claim 7 is objected to because of the following informalities:

- claim 7, line 1, "of claim 5" should read "of claim 1".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2447

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-2, 7, 9-13 & 16-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Bernard Traversat et al. (US Pub No 2002/0184310 A1).

With respect to claim 1, Traversat teaches a network environment supporting multiple peer-to-peer relay networks, comprising:

a main peer-to-peer relay network including all peer systems in the multiple peer-to-peer relay networks, at least one of the peer systems including at least one processor (i.e., a global world peer group includes all peer systems and the peers can also belong to multiple peer-to-peer groups ¶ 0132 & Fig. 33 and each peer is a computing device including at least one processor Fig. 1A-B), the main peer-to-peer network having sub-networks within the main peer-to-peer relay network (i.e., the global world peer group includes self-organize peer groups, which is an abstract region of the network and may act as a virtual subnet ¶ 0103 & 0115), wherein each peer system of a sub-network is also a member of the main peer-to-peer relay network (i.e., the global world peer group includes all peer-to-peer platform peers, which teaches a peer system of a sub-network is also a member of a global network, or the main peer-to-peer relay network ¶ 0103 & 0132);

a first peer-to-peer relay network including a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said first

Art Unit: 2447

peer systems including at least one processor (i.e., peer group 210B includes peer member 200A and 200B and peer group 210B are a sub-group of the main global group ¶ 0131-0133 & Fig. 33); and

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network (i.e., peer 200F may not have access to service provided by peer group 210B ¶ 0130 and peer groups can define a region scope that may limit communication to among themselves ¶ 0114-0116 & 0134-0136), and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer in the main peer-to-peer relay network before the first sub-network is established is relayed to all peers in the main peer-to-peer relay network (i.e., a peer, 200A, may discover one or more peer groups by broadcasting discovery query message, which broadcast the discovery query message to possibly all peers in the global world peer group and if peer 200A is not a member of any peer group, this broadcasting discovery query message occurs before the membership, or first sub-network, is established ¶ 0118-0122 & 0283), and

wherein each peer independently maintain a list of available networks and a list of peers in each network (i.e., rendezvous peers may keep a list of known peers and peer groups and all members of a peer group may become rendezvous peers, which teaches each peer may independently maintain a list of known peers and peer groups ¶ 0110, 0286 & 0321).

Art Unit: 2447

With respect to claim 2, Traversat teaches further comprising a server connected to each peer system (i.e., the peer devices may serve as a client of or a server to any of the other devices therefore it is possible for a peers to serve as server and be connected to other peer systems ¶ 0019).

With respect to claim 7, Traversat teaches wherein the peer systems in said first peer-to-peer relay network represent players in an online game (i.e., the peers may include application layer for instant messaging, entertainment content management and delivery, peer-to-peer email systems, distributed auction systems, and many others to include online gaming ¶ 0020-0024).

With respect to claim 9, Traversat teaches wherein data relayed in said first peer-to-peer relay network is network service data (i.e., the low-level layer provides plumbing services such as peer establishment, communication management and routing, which are network service data ¶ 0161).

With respect to claim 10, Traversat teaches wherein data relayed in said first peer-to-peer relay network is data for an online environment (i.e., the data relayed could be for file sharing service or instant messaging, hence online environment ¶ 0020 & 0094).

With respect to claim 11, Traversat teaches wherein data relayed in said first peer-to-peer relay network is data for a lobby environment (i.e., the top application layer relay data for auctioning which requires a lobby environment or a community environment ¶ 0094).

With respect to claim 12, Traversat teaches wherein data relayed in said first peer-to-peer relay network is data for a chat room in said lobby environment (i.e., the top application layer relay data that also includes services like AIM instant messaging, which includes a chatroom ¶ 0020 & 0094).

With respect to claim 13, Traversat teaches wherein data relayed in said second peer-to-peer relay network is data for an online game (i.e., data relayed could be data for the top application layer data such as emailing, auctioning, storage systems, file sharing and AIM Instant Messaging, therefore online gaming data can also be relay with the application layer ¶ 0020 & 0094).

With respect to claim 16, Traversat teaches wherein at least one peer system is a network-enabled game console (i.e., a peer system can be any electronic device with a digital heartbeat such as a consumer electronic, PDA, appliance, and certainly a network-enable game console ¶ 0022 & 0079).

With respect to claim 17, Traversat teaches wherein at least two peer systems are connected through the Internet (i.e., the peer-to-peer are connected over the internet ¶¶ 0013-0014).

With respect to claim 18, Traversat teaches a method of replaying data in a peer-to-peer relay networks, comprising:

establishing a main peer-to-peer relay network including all peer systems in the multiple peer-to-peer relay networks, at least one of the peer systems including at least one processor (i.e., a global world peer group includes all peer systems and the peers can also belong to multiple peer-to-peer groups ¶¶ 0132 & Fig. 33 and each peer is a computing device including at least one processor Fig. 1A-B); the main peer-to-peer network having sub-networks within the main peer-to-peer relay network (i.e., the global world peer group includes self-organize peer groups, which is an abstract region of the network and may act as a virtual subnet ¶¶ 0103 & 0115), wherein each peer system of a sub-network is also a member of the main peer-to-peer relay network (i.e., the global world peer group includes all peer-to-peer platform peers, which teaches a peer system of a sub-network is also a member of a global network, or the main peer-to-peer relay network ¶¶ 0103 & 0132);

establishing a first peer-to-peer relay network including a plurality of first peer systems that are a first sub-network of the main peer-to-peer relay network, at least one of said first peer systems including at least one processor (i.e., establishing a peer

Art Unit: 2447

group 210B includes peer member 200A and 200B and peer group 210B are a sub-group of the main global group ¶ 0131-0133 & Fig. 33);

receiving data at a relaying peer system in the first peer-to-peer relay network from a sending peer system connected to the relaying peer system (i.e., a peer system may receive communication messages from other peers ¶ 0114 & 0417-0423);

selecting another peer in the first peer-to-peer relay network corresponding to said received data (i.e., router peer selecting another peer, such as using a route table, to route the communication to ¶ 0422-0431), and

relaying said data to the another peer system (i.e., routing the communication to the destination peer ¶ 0422-0431),

wherein a message addressed from a peer in the first peer-to-peer relay network to another peer in the first peer-to-peer relay network is relayed only to peers in the first peer-to-peer relay network (i.e., peer 200F may not have access to service provided by peer group 210B ¶ 0130 and peer groups can define a region scope that may limit communication to among themselves ¶ 0114-0116 & 0134-0136), and

wherein a message addressed from a peer in the first peer-to-peer relay network to a peer in the main peer-to-peer relay network before the first sub-network is established is relayed to all peers in the main peer-to-peer relay network (i.e., a peer, 200A, may discover one or more peer groups by broadcasting discovery query message, which broadcast the discovery query message to possibly all peers in the global world peer group and if peer 200A is not a member of any peer group, this

Art Unit: 2447

broadcasting discovery query message occurs before the membership, or first sub-network, is established ¶ 0118-0122 & 0283), and

wherein each peer independently maintain a list of available networks and a list of peers in each network (i.e., rendezvous peers may keep a list of known peers and peer groups and all members of a peer group may become rendezvous peers, which teaches each peer may independently maintain a list of known peers and peer groups ¶ 0110, 0286 & 0321).

With respect to claim 19, Traversat teaches wherein said relaying peer system is in two or more peer-to-peer relay networks (i.e., a router peer may be used to describe a peer that crosses one or more regions and that is designated to be a router between the regions, therefore is in two or more peer-to-peer relay networks ¶ 0111) and said relaying peer system has respective sets of one or more connections to other peer systems for each peer-to-peer relay network to which said relaying peer system belongs (i.e., Fig. 19& 20 shows router peer having one or more connections to other peer systems).

With respect to claim 20, Traversat teaches wherein said relaying peer system stores a respective connection limit and a respective set of one of more relay rules for each peer-to-peer relay network to which said relaying peer system belongs (i.e., an endpoint routing protocol may define set of request/query messages that is processed by a routing service to help a peer route messages to its destination ¶ 0402-0405), a

Art Unit: 2447

connection limit defines a number of other peer systems up to which a peer system is permitted to connect in that peer-to-peer relay network (i.e., peers may self-organize into peer groups with policy to only allow peers within the group to connect to one another ¶¶ 0114-0117) and a set of one or more relay rules defines how a peer system is to relay data to other peer systems connected to that peer system in that peer-to-peer relay network (i.e., when a peer router receives a route query, if it knows the destination, it may answer the query by returning the route information ¶¶ 0404-0407).

The limitation of claims 21 and 24 are rejected in the analysis of claim 18 above, and these claims are rejected on that basis.

The limitation of claims 22 and 25 are rejected in the analysis of claim 19 above, and these claims are rejected on that basis.

The limitation of claims 23 and 26 are rejected in the analysis of claim 20 above, and these claims are rejected on that basis.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Traversat et al. (US Pub No 2002/0184310 A1) in view of Thomas W. Lynch (US Pat No. 6,487,600 B1).

With respect to claim 14, Traversat teaches further comprising another peer-to-peer relay network including N3 peer systems (i.e., a third peer group is shown on Fig. 33, such as peer group 210C) wherein each peer system in said another peer-to-peer relay network is connected to a number of other peer systems in said another peer-to-peer relay network that is less than or equal to a third connection limit (i.e., each peer group, 210A, 210B or 210C, is in a group connected to relay messages to other peers and the purpose of creating groups is to create a limited scope environment limiting connections to within the group, such that members of one peer group are limited to connecting to only other members of that group ¶ 0130-0133), each peer system in said another peer-to-peer relay network is configured to relay data to peer systems connected to that peer system according to a third set of one or more relay rules (i.e., communications or relay is limited to members of the same group ¶ 0130-0133) and at least one peer system in said another peer-to-peer relay network is also in said first peer-to-peer relay network (i.e., the peer-to-peer relay network doesn't limit how many groups, or relay network, a peer can belong to therefore a Peer Group containing members of multiple peer relay network is possible, such as peer member 200C is a member of peer group 210A and 210C ¶ 0130-0133 & Fig. 33). Traversat does not explicitly disclose said third connection limit is greater than or equal to 2, said third connection limit is less than or equal to N3-2. However, Lynch teaches said third

Art Unit: 2447

connection limit is greater than or equal to 2, said third connection limit is less than or equal to $N-2$ (i.e., Fig. 7 shows the connection path between the peers are limited to greater than or equal to 2 and less than or equal to $N-2$) in order to allow peers to communicate with others to exchange data (Col. 2, lines 6-13). Therefore, based on Traversat in view of Lynch, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Lynch to the system of Traversat in order to allow peers to communicate with others to exchange data.

With respect to claim 15, Traversat and Lynch disclose the claimed subject matter as discussed above and Traversat further teaches wherein none of the peer systems in said another peer-to-peer relay network are in said first peer-to-peer relay network (i.e., peer member 200E is not a member of peer group 210A).

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Traversat et al. (US Pub No 2002/0184310 A1) in view of Danieli et al. (US Pat No. 7,240,093 B1).

With respect to claim 8, Traversat discloses the claimed subject matter as discussed above but does not explicitly disclose wherein the peer systems in said first peer-to-peer relay network represent players in said online game that are on the same team. However, Danieli teaches wherein the peer systems in said first peer-to-peer relay network represent players in said online game that are on the same team (i.e., players, or peers, on the network can form teams to participate in online multi-player

Art Unit: 2447

games Col. 10, line 62 - Col. 11, line 15) in order to isolate communication channels so that the communication between the members are not overhead by other peers not on the same team (Col. 10, line 62 - Col. 11, line 15). Therefore, based on Traversat in view of Danieli, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teaching of Danieli to the system of Traversat in order to isolate communication channels so that the communication between the members are not overhead by other peers not on the same team.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ramanathan et al. (US Pub No 2003/0191828 A1) discloses relevant information on a decentralized peer-to-peer networks.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAU D. LE whose telephone number is (571) 270-7217. The examiner can normally be reached on Monday to Friday 8:00 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Hwang can be reached on (571) 272-4036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2447

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. D. L./
Examiner, Art Unit 2447
05/012010

/Joon H. Hwang/
Supervisory Patent Examiner, Art Unit 2447